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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/581,727 | 06/05/2006 | Tamami Koyama | Q78966 | 8717 |

23373 7590 11/25/2009

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| EXAMINER | |
|---|---|
| NGUYEN, HAIDUNG D | |
| ART UNIT | PAPER NUMBER |
| 1796 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 11/25/2009 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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USPTO@SUGHRUE.COM

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/581,727 | KOYAMA ET AL. | |
| | Examiner | Art Unit | |
| | Haidung D. Nguyen | 1796 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *9-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

**DETAILED ACTION**

1. This action is responsive to applicant's amendment/remarks filed 7/27/09.

2. Claims 1-8 have been cancelled. Claim 9 has been amended. Claims 12 and 13 have been added. Claims 9-13 are currently pending.

3. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

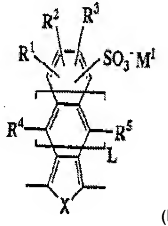
The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 103***

4. **Claims 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick et al. (6,611,096) in view of Saida et al. (JP11-189746), hereafter Saida '746.**

McCormick et al. discloses an organic light emitting device comprising at least one light emitting layer between an anode and a cathode (figures 1 and 2), wherein the light emitting layer adjacent to the anode is an anode buffer layer comprising a self-doping conductive polymer including polythiophenes, polyanilines and polyisothianaphthenes (col 5, ln 45 to col 6, ln 20).

McCormick et al. does not disclose the self-doping conductive polymer as claimed. Saida '746 discloses a self-doping conductive polymer, wherein the polymer comprise a monomer unit represented by the formula 3



(Formula 3)

The molecular weight of the self-doping conductive polymer is not limited and can be in the range of 5 to 2000. Examples of the self-doping conductive polymer are a polymer of 5-sulfoisothianaphthene-1,3-diyl, a random copolymer containing 5-sulfoisothianaphthene-1,3-diyl in an amount of 80 % by mass or more, poly (5-sulfoisothianaphthene-l,3-diyl-co-isothianaphthene-l,3-diyl) or a salt thereof (para 0008, 0019-0020).

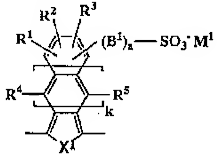
It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the self-doping conductive polymer as taught by Saida '746 to produce the organic light emitting device of McCormick et al., because Saida '746 teaches the polymer can be used as coating material used for an electrode, electronics display devices (para 0047)

5. **Claims 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick et al. (6,611,096) in view of Saida et al. (JP10-168328), hereafter Saida '328.**

McCormick et al. discloses an organic light emitting device comprising at least one light emitting layer between an anode and a cathode (figures 1 and 2), wherein the

light emitting layer adjacent to the anode is an anode buffer layer comprising a self-doping conductive polymer including polythiophenes, polyanilines and polyisothianaphthenes (col 5, ln 45 to col 6, ln 20).

McCormick et al. does not disclose the self-doping conductive polymer as claimed. Saida '328 discloses a self-doping conductive polymer, wherein the polymer comprise a monomer unit represented by the formula 1



(Formula 1)

The molecular weight of the self-doping conductive polymer is not limited and can be in the range of 5 to 2000. Examples of the self-doping conductive polymer are a polymer of 5-sulfoisothianaphthene-1,3-diyl, a random copolymer containing 5-sulfoisothianaphthene-1,3-diyl in an amount of 80 % by mass or more, poly (5-sulfoisothianaphthene-l,3-diyl-co-isothianaphthene-l,3-diyl) or a salt thereof (abstract, para 0008, 0016 and 0024).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the self-doping conductive polymer as taught by Saida '328 to produce the organic light emitting device of McCormick et al., because Saida '328 teaches the polymer can be used as various electrical conducting materials for manufacturing an electrode, electronics display devices (para 0001 and 0061)

6. **Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick et al. (6,611,096) in view of Saida '746 as applied to claims 9, 12 and 13 above, and further in view of Takeuchi et al. (US 2004/0247934)**.

McCormick et al. in view of Saida '746 disclose an organic light emitting device as discussed above. Neither McCormick et al. or Saida '746 discloses the light emitting layer comprises a fluorescent or phosphorescent polymer material.

Takeuchi et al. discloses an organic light emitting device comprising a light emitting layer, wherein the light emitting layer comprises a fluorescent or phosphorescent polymer material (abstract, para 0013 and 0348).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the fluorescent or phosphorescent polymer material as taught by Takeuchi et al. to manufacturing the light emitting layer of McCormick and Saida '746, thereby provide an organic light emitting device having high luminance and high light emission efficiency (para 0013).

**7. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormick et al. (6,611,096) in view of Saida '328 as applied to claims 9, 12 and 13 above, and further in view of Takeuchi et al. (US 2004/0247934)**.

McCormick et al. in view of Saida et al. disclose an organic light emitting device as discussed above. Neither McCormick et al. or Saida '328 discloses the light emitting layer comprises a fluorescent or phosphorescent polymer material.

Takeuchi et al. discloses an organic light emitting device comprising a light emitting layer, wherein the light emitting layer comprises a fluorescent or phosphorescent polymer material (abstract, para 0013 and 0348).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the fluorescent or phosphorescent polymer material as taught by Takeuchi et al. to manufacturing the light emitting layer of McCormick and Saida '328, thereby provide an organic light emitting device having high luminance and high light emission efficiency (para 0013).

***Response to Arguments***

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Examiner Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haidung D. Nguyen whose telephone number is (571)270-5455. The examiner can normally be reached on M-Th: 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harold Y Pyon/
Supervisory Patent Examiner, Art Unit 1796

\HN\

Haidung D Nguyen
Examiner
Art Unit 1796